



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,723	01/05/2004	John M. Monk	10021131-1	2252

7590 07/24/2008
AGILENT TECHNOLOGIES, INC.
Intellectual Property Administration
Legal Department, DL 429
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

RUTKOWSKI, JEFFREY M

ART UNIT	PAPER NUMBER
----------	--------------

2619

MAIL DATE	DELIVERY MODE
-----------	---------------

07/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/751,723	Applicant(s) MONK, JOHN M.	
	Examiner JEFFREY M. RUTKOWSKI	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first and second paragraphs of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 2-24** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

4. For **claims 2-24**, the specification only discloses the “normalization” process in general terms. The Specification does not describe how to actually carry out the “normalization” process beyond simply selecting an upper bound and a lower bound for information. There is no discussion regarding how the upper and lower bounds are converted into “normalized” values [Specification, 0034-0035].

5. For **claims 17-24**, the claims are enabled for a packet network analyzer but not a for a packet network analyzer system.

6. **Claims 2-10 and 17-24** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2619

7. **Claims 2-24** are indefinite because it is not clear what is meant by the term normalized.
8. **Claims 17-20** are indefinite because it is not clear if the configured logic is referring to the same module or different modules of the analyzer.
9. **Claims 17-24** are indefinite because the claims recite a packet network analyzer system but do not provide any parts that make-up the system.

Claim Rejections - 35 USC § 101

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. **Claims 17-24** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, namely propagation medium (signals) and printed matter [Specification, 0050].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
13. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonney et al. (US Pat 7,096,264), hereinafter referred to as Bonney, in view of Bahadiroglu (US Pg Pub 2002/0186660) and Barillaud (US Pat 6,741,568).
14. For **claim 1**, Bonney discloses a network analyzer system that has a network analyzer **10** (host analyzer) that communicates with capture agents **4** (client analyzer) over a network **6** [**figure 2**]. The capture agents **4** are used to send captured network traffic (raw digital data) to the network analyzer **10** [**col. 1 lines 7-23**].
15. Bonney uses an aggregation module **13** to process the information (raw digital data) received from the capture agents **4** [**col. 4 lines 6-11, 30-33**]. Bonney does not disclose using a neural processing module to process the information. Bahadiroglu discloses a neural processing module **48B** that is used as part of a network analyzer **48** [**figure 6A**]. It would have been obvious to a person of ordinary skill in the art to use a neural network to process raw information in Bonney's invention to allow for a more accurate network analysis to be performed [**Barillaud, col. 4 lines 30-40**].
16. **Claims 2-3, 11, 17 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonney in view of Bahadiroglu and Barillaud as applied to **claim 1** above, and further in view of Durrant et al. (US Pat 6,691,120), hereinafter referred to as Durrant.
17. For **claims 2, 11, 17 and 21**, Bonney discloses a network analyzer **10** that contains an aggregation module **13**. The aggregation module **13** performs the function of a collection element by receiving raw information from the agents **4** [**col. 3 line 61 to col. 4 line 4**]. The aggregation module **13** also performs the functions of a data selection element by allowing a user

Art Unit: 2619

to select a subset of packet streams for further analysis [**col. 4 lines 10-13**]. The aggregation module **13** also performs the functions of a data processing element by removing duplicate packets (normalizing) to give a clear illustration of network activity [**col. 4 lines 25-28**].

18. Bonney discloses that network capture information (information used to characterize a packet-network-under-test) can be stored in a database [**col. 3 lines 65-66**]. The combination of Bonney and Bahadiroglu disclose a preliminary mode of operation of a neural processing module that is used to train (generate a set of rules and relationships) a neural network to be used in a network analyzer [**Bahadiroglu, 0112**].

19. The combination of Bonney, Bahadiroglu and Barillaud do not disclose the use of a data mining module. Durrant discloses data mining tools commonly use predefined algorithms (rules and relationships) to find patterns in data volumes (generate mined data set) [**col. 2 lines 7-12**]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a data mining module in Bonney's invention to allow for a large amount of information to be analyzed [**Durrant, col. 2 line 8**].

20. For **claim 3**, Bonney does not disclose the use of an ART classification mechanism. Barillaud discloses an ART classification mechanism that is used in a neural network [**col. 4 lines 38-40**]. It would have been obvious to a person of ordinary skill in the art to use a ART classifier in Bonney's invention to allow for a more accurate network analysis to be performed [**Barillaud, col. 4 lines 30-40**].

21. **Claims 4-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonney in view of Bahadiroglu, Barillaud and Durrant, as applied to **claims 3 and 2 respectively** above, and further in view of Schmidt (US PgPub 2002/0049720).

22. For **claim 4**, the combination of Bonney, Bahadiroglu, Barillaud and Durrant do not disclose the use of an Chi Squared Automatic Interaction Detection (CHAID) scheme. Schmidt discloses common data mining methods include the use of CHAID algorithms [0006] (wherein the neural processing module further comprises a rules and relationship extraction module that uses a modified CHAID scheme). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a CHAID algorithm in Bonney's invention to determine which data attributes should be the focus of pattern extraction to obtain significant results.

23. For **claim 5**, the combination of Bahadiroglu, Barillaud and Durrant disclose an ART classification mechanism that is used in a neural network [Barillaud, col. 4 lines 38-40]. The combination of Bahadiroglu, Barillaud and Durrant do not disclose the use of a CHAID scheme. Schmidt discloses common data mining methods include the use of CHAID algorithms [0006]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a CHAID algorithm in Bonney's invention to determine which data attributes should be the focal point.

24. **Claims 6-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonney in view of Bahadiroglu, Barillaud, Durrant and Schmidt, as applied to **claims 5 and 2 respectively** above, and further in view of Adhikari et al. (US PgPub 2004/0252646).

25. For **claim 6**, Bonney discloses capture data can be generated in a variety of forms, including files [col. 3 lines 63-65]. The combination of Bonney, Bahadiroglu, Barillaud, Durrant and Schmidt do not disclose the use of Extensible Markup Language (XML). Adhikari discloses XML can be used to describe the type of testing, traffic, control or other parameter(s) to be used during traffic generation [0094] (wherein the first client analyzer uses XML to

Art Unit: 2619

transport the raw digital data of the packet-network-under-test to the data collection element). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use XML in Bonney's invention to improve the monitoring capabilities of the analyzer system [Adhikari, abstract].

26. For **claim 7**, Bonney discloses a network analyzer that is used to analyze Internet Protocol (IP) network traffic [figure 9].

27. For **claim 8**, Bonney's invention analyzes traffic that uses Internet routable addresses [figure 8].

28. For **claims 9-10**, Bonney discloses Transmission Control Protocol over IP (TCP/IP) messages and sockets are used by the host analyzer and the agents to exchange information, which suggests the use of an HTTP server [col. 3 lines 50-55]. Bonney does not disclose the use of XML. Adhikari discloses a monitoring and analysis system that can be configured to support a web-based (HTTP) interface [abstract]. Adhikari's invention uses XML scripts to describe the type of testing, traffic, control or other parameter(s) during traffic generation [0094]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use XML in Bonney's invention to improve the monitoring capabilities of the analyzer system [Adhikari, abstract].

29. **Claims 12, 18 and 22** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonney in view of Bahadiroglu, Barillaud and Durrant as applied to **claims 11, 17 and 21 respectively** above, and further in view of Adhikari.

30. For **claims 12, 18 and 22**, Bonney discloses Transmission Control Protocol over IP (TCP/IP) messages and sockets are used by the host analyzer and the agents to exchange

information, which suggests the use of an HTTP server [**col. 3 lines 50-55**]. Bonney does not disclose the use of XML. Adhikari discloses a monitoring and analysis system that can be configured to support a web-based (HTTP) interface [**abstract**]. Adhikari's invention uses XML scripts to describe the type of testing, traffic, control or other parameter(s) during traffic generation [**0094**]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use XML in Bonney's invention to improve the monitoring capabilities of the analyzer system [**Adhikari, abstract**].

31. **Claims 13-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonney in view of Bahadiroglu, Barillaud, Durrant, Adhikari and as applied to **claim 12** above, and further in view of Schmidt.

32. For **claim 13**, the combination of Bonney, Bahadiroglu, Barillaud, Durrant, Adhikari does not disclose the use of a CHAID scheme. Schmidt discloses common data mining methods include the use of CHAID algorithms [**0006**]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a CHAID algorithm in Bonney's invention to determine which data attributes should be the focal point.

33. For **claim 14**, Bonney does not disclose an analyzer that identifies bottlenecks. Barillaud discloses a network analysis system that uses ART to determine bottleneck link speeds [**col. 2 lines 21-25**]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use neural networks to identify bottlenecks in Bonney's invention to allow for a more accurate network analysis to be performed [**Barillaud, col. 4 lines 30-40**].

34. For **claim 15**, Bonney discloses a network analyzer that is used to analyze Internet Protocol (IP) network traffic [**figure 9**].

35. For **claim 16**, Bonney's invention analyzes traffic that uses Internet routable addresses **[figure 8]**.

36. **Claims 19-20 and 23-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonney in view of Bahadiroglu, Barillaud, Durrant and Adhikari as applied to **claims 18 and 22 respectively** above, and further in view of Schmidt.

37. For **claims 19 and 23**, the combination of Bonney, Bahadiroglu, Barillaud, Durrant and Adhikari disclose an ART classification mechanism that is used in a neural network **[Barillaud, col. 4 lines 38-40]**. The combination of Bonney, Bahadiroglu, Barillaud, Durrant and Adhikari do not disclose the use of a CHAID scheme. Schmidt discloses common data mining methods include the use of CHAID algorithms **[0006]**. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a CHAID algorithm in Bonney's invention to determine which data attributes should be the focal point.

38. For **claims 20 and 24**, Bonney's invention analyzes traffic that uses Internet routable addresses **[figure 8]**.

Response to Arguments

39. **Argument** for **claims 17-24**, rejected under 35 USC § 101:

Applicant is specifically claiming a computer readable medium storing the computer executable code

Response:

The specification points out the computer readable medium includes, but limited to, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system,

apparatus, device, propagation medium and printed matter. It is well known in the art that the propagation medium also includes intangible subject matter, such as signals.

40. The remainder of the arguments that were filed on 05/14/2008 have been fully considered but are moot in view of the new grounds of rejection.

Conclusion

41. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY M. RUTKOWSKI whose telephone number is (571)270-1215. The examiner can normally be reached on Monday - Friday 7:30-5:00 PM EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

42. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey M Rutkowski
Patent Examiner
07/20/2008

/Hassan Kizou/
Supervisory Patent Examiner, Art Unit 2619